CLAIMS

What is claimed is:

1.   A method of generating register data for registers of a graphics system, the method comprising:

at least one of the steps of:

generating register data based on a request and writing the register data to the registers of the graphics system for execution; recording a command list of register data in memory as the register data is generated; and recalling a recorded command list of register data and submitting the command list to the graphics system for execution.

2.   The method of claim 1, wherein the step of generating is conducted using a processor, and the steps of recording and recalling is conducted using hardware logic.

3.   The method of claim 1, further comprising the step of modifying the recorded command list prior to the step of submitting.

4.   The method of claim 1, wherein the step of recalling includes recalling a plurality of command lists and submitting the plurality of command lists to the graphics system for execution.

1   5.   The method of claim 1, further comprising the step of receiving an indicator from

2   an application indicating which of the at least one steps to conduct.

1   6.   The method of claim 1, further comprising the step of determining which steps to

2   conduct using an application program interface of the graphics system.

1   7.   An application program interface for generating register data for a graphics system

2   based on a request, the interface comprising:

3   a generate module that generates register data and writes the register data to the

4   graphics system for execution;

5   a command list module including:

6   a record module that records register data generated by the generate

7   module as a command list in memory;

8   a recall module that recalls a command list from memory and submits the

9   command list to the graphics system for execution; and

10   a controller that determines which of at least one of the generate module, the

11   record module and the recall module will be utilized to respond to the request.

1   8.   The interface of claim 7, wherein the graphics system includes a graphics engine,

2   a scaler and a command list processor.

1   9.   The interface of claim 8, wherein the command list processor distributes register

2   data to at least one of the graphics engine and the scaler.

1   10.   The interface of claim 7, wherein the generate module utilizes a processor to

2   generate the register data, and the command list module utilizes hardware logic.

1　11.　The interface of claim 7, wherein the generate module is configured to modify the

2　command list prior to submitting the command list to the graphics system.

1　12.　The interface of claim 7, wherein the recall module recalls a plurality of command

2　lists and submits the plurality of command lists to the graphics system for execution.

1　13.　The interface of claim 12, wherein the generate module is configured to modify

2　the plurality of command lists prior to submission to the graphics system.

1　14.　The interface of claim 7, wherein the controller determines which module to

2　utilize based on an indicator from an application.

1   15.   A digital video system comprising:

2   a processor;

3   a memory;

4   a graphics system for generating graphics;

5   an application resident in memory;

6   an application program interface for the graphics system including:

7   means for generating register data and writing the register data to the

8 graphics system;

9   means for recording in memory register data created by the means for

10 generating as a command list of register data;

11   means for recalling a recorded command list from memory and submitting

12 the command list to the graphics system; and

13   means for selectively controlling which of the means for directly writing,

14 the means for recording and the means for recalling are utilized in generating the

15 register data.

1   16.   The system of claim 15, wherein the graphics system includes a graphics engine,

2 a scaler and a command list processor.

1   17.   The system of claim 16, wherein the command list processor distributes register

2 data to at least one of the graphics engine and the scaler.

1   18.   The system of claim 15, wherein the means for generating modifes the

2   command list prior to the means for recalling submitting the command list to the graphics

3   system.

1   19.   The system of claim 15, wherein the means for recalling recalls a plurality of

2   command lists and submits the plurality of command lists to the graphics system for

3   execution.

1   20.   The system of claim 19, wherein the means for generating modifies the plurality

2   of command lists prior to submission to the graphics system.